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Data sheet for SIMOTICS S-1FT7



Figure similar

Article No. : 1FT7134-5SC71-1BA0

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Engineering data	
Rated speed	2,000 rpm
Number of poles	8
Rated torque (100 K)	160.0 Nm
Rated current	73.00 A
Static torque (60 K)	160.0 Nm
Static torque (100 K)	190.0 Nm
Stall current (60 K)	70.00 A
Stall current (100 K)	85.00 A
Rotor moment of inertia	604.00 kgcm²
Efficiency	95.0 %

Physical constants	
Torque constant	2.25 Nm/A
Voltage constant at 20° C	154.0 V/1000*min^{-1}
Winding resistance at 20° C	0.05 Ω
Rotary field inductance	1.6 mH
Electrical time constant	32.00 ms
Mechanical time constant	1.80 ms
Thermal time constant	22 min
Shaft torsional stiffness	323,000 Nm/rad
Net weight of the motor	97.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	132
Cooling	Forced ventilation
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.125 mm
Axial runout tolerance	0.125 mm
Vibration severity grade	Grade A
Degree of protection	IP64
Design acc. to Code I	IM B5 (compatible with 1FT6)
Temperature monitoring	Pt1000 temperature sensor
Color of the housing	Standard (pearl dark gray similar to RAL 9023)
Shaft end type	Fitted key and keyway
Sensor design	Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Safety Integrated - Suitable encoder	Yes
Electrical connection	Transverse facing to right site
Connector size	3

Optimum operating point	
Optimum speed	2,000 rpm
Optimum power	33.5 kW

Limiting data	
Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	3,600 rpm
Maximum torque	410.0 Nm
Maximum current	210.00 A

Recommended Motor Module	
Rated inverter current	85.00 A
Maximum inverter current	141.00 A
Maximum torque	300.0 Nm

Subject to change. Calculated values may differ from nameplate ratings. © Copyright Siemens